

## APPENDIX A: Program at a Glance - BScPA

MO	WK#	YEAR 1 -Preclinical		YEAR 2- Clinical				
Jan	1	Residential Orientation to Pre-Clinical Intro to Educational Technology+Curriculum	SEMESTER 1 courses	Longitudinal Clinical Experience	Block 1 Clinical 1	Pediatrics	Health Promotion + Education	
	2							
	3		Intro to PA Role					
	4		Anatomy					
Feb	5		Physiology+Pathobiology I		Block 2 Clinical 1			
	6		Clinical Skills I					
	7	Reading Week	Foundations of IPC					
	8							
Mar	9				Evaluation Week			
	10				Residential Orientation to Specialties			
	11							
	12							
	13							
Apr	14	Evaluation Week			Block 3 Clinical 1			
	15	Residential Orientation to Semester 2	SEMESTER 2 courses					
	16							
	17		Diagn. Techs+Procedures I					
May	18		Medical Microbiology		Block 4 Clinical 1			
	19		Physiology +Pathobiology II					
	20		Pharmacology I					
	21		Clinical Skills II					
Jun	22				Block 5 Clinical 1			
	23							
	24							
	25							
	26							
Jul	27	Reading Week			Evaluation Week			
	28				Residential Orientation to Clinical 2			
	29							
	30	Evaluation Week						
Aug	31	Residential Orientation to Semester 3	SEMESTER 3 courses		Block 6 Clinical 2			
	32							
	33							
	34	Vacation	Diagn. Techs+Procedures II		Vacation			
	35		Adult Medicine					
Sep	36		Behavioural Medicine		Block 7 Clinical 2			
	37		Pharmacology II					
	38		Clinical Skills III					
	39							
Oct	40				Block 8 Clinical 2			
	41							
	42							
	43							
Nov	44				Block 9 Clinical 2			
	45							
	46	Evaluation Week						
	47	Residential Orientation to Clinical Placements						
Dec	48				Reading Week			
	49				Residential - Final			
	50				Evaluation Week			
	51							
	52	Vacation			Vacation			

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## APPENDIX B:

### Course Descriptions

#### BScPA: Physician Assistant Professional Degree Program

*Alphabetical by course name*

#### **Adult Medicine**

Reviews disease entities and conditions in adults by system, focusing on their clinical presentation and approach to their diagnosis and management

#### **Anatomy**

Introduces the basic structure of all the major body systems. Also reviews medical terminology. Includes experiential learning opportunities with lab dissections and simulations.

#### **Behavioural Medicine**

Covers mental health assessment, common diagnoses including substance abuse and approach to management

#### **Clinical 1 & 2**

Composed of Block Rotations (Clinical 1 = Blocks 1 to 5; Clinical 2 = Blocks 6-9), where each block is a different clinical placement. 22 weeks in primary care (includes some ER and Inpatient Care); 2 weeks ER; 2 weeks Inpatient Care; 12 weeks Specialties and Electives. Also includes Residential components (Clinical 1 = 3 weeks for Introduction to Specialties; Clinical 2 = 3 weeks for Orientation to Clinical 2). Students will work in clinical environments under medical supervision to further develop their competencies in patient care settings.

#### **Clinical Skills I**

Students will learn the elements of a thorough medical history and physical examination. They will also develop an approach to medical problem analysis, differential diagnosis, and the formulation and communication of management plans.

#### **Clinical Skills II**

Students will apply techniques learned in Clinical Skills I patient cases. Preliminary procedure skills include venipuncture, injections, wound care and Pap tests. Interprofessional collaboration with other disciplines for patient-centred care will occur during the residential portions of the course.

#### **Clinical Skills III**

Emphasizes hands-on technical skills including cast and splint application, suturing and minor surgical procedures as well as the skillset required for urgent cardiac and trauma care (ACLS, ATLS). Principles of triage and mass casualty management are also covered.

#### **Diagnostic Techniques and Procedures I & II**

Outlines the principles and practice of laboratory medicine including basic laboratory techniques and tests available. Teaches the performance of bedside diagnostic testing such as ECGs, peak flows and visual acuity among others. Reviews the indications and use of diagnostic imaging tests and informs approaches to the interpretation of results of all of these diagnostic modalities.

#### **Evidence Based Medicine**

Introduces the core principles of epidemiology, scientific research and evidence based medicine, enabling students to engage in life-long learning in medical sciences and to evaluate scientific literature effectively.

### **Foundations of Interprofessional Collaboration**

Interprofessional Collaboration (IPC) requires effective communications and teamwork amongst all health care professionals. Learners will develop skills for effective verbal, nonverbal and written communication. This course will help learners demonstrate clear and effective communication, positive attitudes and behaviours, work effectively in teams, resolve conflicts as well as take responsibility for his/her own actions.

### **Health Promotion and Education**

Introduces models of behaviour change and patient-centered approach to empowering patients towards optimal health in specific areas. Public health infrastructure, the role of immunizations in disease control and the social determinants of health are outlined.

### **Introduction to Physician Assistant Role**

Reviews the components of the Canadian Health Care system and how they interact, as well as the history, roles and responsibilities of a PA within the system.

### **Longitudinal Clinical Experience**

PA students observe a variety of clinical care settings to complement the knowledge acquisition and integration of the rest of the curriculum. Examples of clinical experiences are: family medicine clinic, community outpatient lab, medical imaging department, pharmacy, social work, physiotherapy, home care, long term care institution.

### **Medical Ethics**

Utilizing a patient centred care framework, this course discusses principles of health care in Canada, and issues of autonomy, confidentiality, informed consent, ethical conduct of the professional, and health equity and gender equality in health care.

### **Medical Microbiology**

Introduces organisms which produce illness in humans including common bacteria, viruses, parasites and fungi. Focus on the presentations, epidemiology, diagnosis and natural history of infections of specific body systems.

### **Pediatrics**

Reviews normal child development, disease entities and conditions in neonates and children by system, focusing on their clinical presentation and approach to their diagnosis and management.

### **Pharmacology I & II**

Outlines principles of drug therapy, pharmacokinetics and medication administration. Reviews categories of medications, their characteristics and effects, both desired and adverse. Teaches how to prescribe, control and dispense medications and medical supplies.

### **Physiology and Pathobiology I & II**

Reviews the general pathways and biology of disease and then focuses on specific, common disease entities by system and in relation to their etiology, epidemiology, presentation and natural history. Also reviews principles of basic biochemistry.

## APPENDIX C:

### Degree Level Expectations for Graduates Receiving the Bachelor of Science, Physician Assistant BScPA

#### Faculty of Medicine, University of Toronto

##### 1. Introduction

The Bachelor's of Science Physician Assistant degree is a full-time professional, second-entry undergraduate degree program offered by the Department of Family and Community Medicine (DFCM) in the Faculty of Medicine at the University of Toronto, with collaboration by two additional higher education institutions: the Northern Ontario School of Medicine (NOSM) and The Michener Institute for Applied Health Sciences (Michener). The University of Toronto is the degree granting institution. The BScPA is intended for professionals with prior experience in a health related field and with commitment to contribute to healthcare in underserved and rural communities.

A Physician Assistant (PA) is a mid-level health care professional who is considered to be a physician extender. PAs are authorized (in Ontario) through Delegation of Controlled Acts and other procedures to provide a broad range of medical and surgical services under the supervision of licensed physicians. The PA profession was designated as a health care profession in Canada in May 2003 by the Canadian Medical Association (CMA).

It is our intent that the BScPA program receives accreditation<sup>1</sup> by the Conjoint Committee for Accreditation (CCA) of the CMA. Graduates of the accredited program will be eligible for PA Certification (a national designation) with PACC (Physician Assistant Certification Council), an independent Council of the Canadian Association of Physician Assistants (CAPA).

The CCA sets the national education benchmark as the body that accredits the professional education programs in Canada. The requirements for program accreditation are fivefold:

1. Student attainment of competencies specified in national profile (7 criteria; 2 critical criteria)
2. Protection of student rights and interests (9 criteria; 2 critical criteria)
3. Adequate resources for effective learning (5 criteria; 2 critical criteria)
4. Infrastructure for integrated learning experience (5 criteria; 2 critical criteria)
5. Program evaluation for continuous quality improvement (4 criteria; 2 critical criteria)

Currently, the CCA acknowledges the Physician Assistant National Competency Profile as established by CAPA. "*Defining the Physician Assistant Role in Ontario: Ontario Physician Assistant Scope of Practice Statement and Ontario Physician Assistant Competency Profile*"<sup>2</sup> was written on behalf of the Physician Assistant Implementation Steering Committee (PAISC), which is a partnership between the Ministry of Health and Long-Term Care (MOHLTC) and the Ontario Medical Association (OMA). This document explains why defining the scope of practice and competency for PAs in Ontario is fundamental for the successful integration of PAs in Ontario, as follows:

...The scope of practice defines how and under what circumstances the PA may exercise their competencies within the health care system. The competency profile provides insight to what PAs, as practitioners, are trained and able to do. Thus, it is essential that the Scope of Practice statement and the Clinical Competency Profile are considered simultaneously when defining the PA role in Ontario practice settings.

This document provides both the Scope of Practice Statement and the Competency Profile that have been developed for PAs in Ontario. These documents are intended to help employers, PAs, educationalists and others to understand the "how" and "what"

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<sup>1</sup> As of January 2009, there is only one PA Education program that is accredited in Canada: the certificate program delivered by the Canadian Forces Medical Services School for the Department of National Defense.

<sup>2</sup>Mikhael, Ozon and Rhule, 2007

that PAs can do in Ontario. These documents should be considered together to help define specific roles and develop job descriptions for PAs as they are integrated into practice in Ontario. [emphasis added]

## **2. Degree Learning Objectives and Requirements**

The *Ontario Physician Assistant Competency Profile* is defined using The Royal College of Physicians and Surgeons of Canada's CanMEDS 2005<sup>3</sup> framework as a model. This framework is comprehensive, defining the needs of educators, teachers and PA students as well as other stakeholders (i.e. practicing physicians, researchers, other health care professionals, public officials and the public). Based on this, the curriculum objectives are organized to reflect practitioner competencies in seven thematic roles:

- clinical expert
- communicator
- collaborator
- manager
- health advocate
- scholar
- professional

### **2.1 Overall Learning Objectives**

The University of Toronto, Faculty of Medicine has adopted the following goals for the Physician Assistant curriculum:

To equip graduates with the knowledge, skills and attitudes necessary to establish the foundation for a sustainable Canadian PA professional identity based on principles of:

- a. Social accountability
- b. Professionalism
- c. Interprofessional Collaboration
- d. Critical thinking
- e. Life-long learning

### **2.2 Requirements to Graduate**

All of the below curriculum requirements must be successfully fulfilled by a student in order to graduate.

Each student will complete 96 weeks (plus 8 weeks scheduled vacation) over the 24-consecutive-month Physician Assistant Professional Degree Program.

#### **YEAR 1:**

Year 1 (3 semesters) is academically focused:

- The program introduces students to theoretical and practical knowledge of generalist medicine.
- Through independent, small and large group learning, simulations and experiential courses, the program expands on and strengthens PA core competencies.

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<sup>3</sup> Frank, J.R. (Ed). 2005. The CanMEDS 2005 physician competency framework. Better standards. Better physicians. Ottawa: The Royal College of Physicians and Surgeons of Canada.

- Completion of 15 courses in total, in addition to 120 hours of longitudinal clinical experience (4 hours per week in various clinical settings) is expected.
- 14 weeks are designated for residential weeks to include orientation to clinical topics, seminars and simulated clinical learning experiences
- 3 separate weeks are designated for summative evaluation of students over the course of Year 1.

In Year 1 there are fifteen courses:

*Intro to PA role, Anatomy, Physiology and Pathobiology I & II, Foundations of Interprofessional Collaboration, Clinical Skills I, II & III, Diagnostic Techniques and Procedures I & II, Medical Microbiology, Pharmacology I & II, Adult Medicine and Behavioural Medicine.*

These courses, along with longitudinal clinical experience, prepare the Physician Assistant student with the base knowledge, skills and attitude required to enter the clinical year: basic sciences to provide context for clinical cases and medical conditions; proper techniques for medical history and physical examination; interprofessional and collaborative experiences and concepts of health and illness to promote patient-centered care; explorations of PA professional identity to understand the Canadian healthcare system and their role in it.

The courses are delivered in a distance education format with blocks of concentrated ‘residential’ time in central location for hands-on, simulation and face-to-face experiences and evaluations.

## **YEAR 2:**

Year 2 (3 semesters) is clinically focused:

- A competency-based academic curriculum drives the clinical training portion of the program.
- Through clinical placements focused on primary care and generalist medicine, students have the opportunity to develop into proficient PAs and to explore areas of interest.
- Completion of 9 blocks of clinical rotations, for a total of 38 weeks of direct clinical contact is expected.
- 6 weeks are designated for residential weeks to include orientation to clinical topics, seminars and simulated clinical learning experiences
- 3 separate weeks are designated for summative evaluation of students over the course of Year 2.

In Year 2 there are clinical block rotations and four courses:

*Clinical 1(Blocks 1-5), Clinical 2 (Blocks 6-9), Pediatrics, Health Promotion and Education, Medical Ethics and Evidence Based Medicine.*

The clinical blocks consolidates the Year 1 knowledge and experience with rotations in primary care, which may include outpatient, hospital, rehabilitation, palliative and long term care settings, and specialties/elective blocks which allow students to individualize their experience. Students will receive exposure to all major disciplines through their clinical Blocks (Internal Medicine, Surgery, Psychiatry, Pediatrics, Obstetrics and Gynecology, Trauma and Emergency Medicine, and Family Medicine). The additional 4 courses that coincide with the Block rotations are longitudinal, on-line courses allowing the student to gain experience and ensure competency in the discipline of pediatrics, to learn about the preventive care approach with health promotion and protection, the issues of medical ethics and equality in health care, as well as the skills to evaluate scientific literature effectively, In year 2 there are three blocks of concentrated ‘residential’ labs for hands-on, simulation and face-to-face experiences

Following the successful completion of these 96 weeks, pending accreditation in 2011 by the CMA, each Physician Assistant student will be eligible to apply for National Certification with PACC.

### **3. Degree Level Expectations for the PA Program**

(Adapted from the General Competencies listed in: “*Defining the Physician Assistant Role in Ontario: Ontario Physician Assistant Scope of Practice Statement and Ontario Physician Assistant Competency Profile*”<sup>4</sup>)

Successful completion of the PA curriculum results in a clinician that demonstrates the generalist competencies for a PA as required for certification by the Certification Council of CAPA. Additional clinical training and skills development can facilitate the PA’s involvement in a more specialized role within a medical or surgical sub-specialty practice.<sup>5</sup>

#### **3.1 Depth and Breadth of Knowledge**

##### **(Clinical Expert)**

The Physician Assistant (PA) graduate will be able to:

- Integrate all the core PA competencies to provide optimal, ethical and patient-centered medical care.
- Perform a complete and appropriate clinical assessment of a patient and formulate a clinical treatment plan.
- Use preventive and therapeutic interventions effectively.
- Demonstrate proficient and appropriate use of diagnostic and procedural skills.
- Recognize their scope of practice while demonstrating effective and appropriate consultation practice with other healthcare professionals in respect to patient care, education and legal opinions.

##### **3.1.1 Knowledge of Methodologies**

###### **(Scholar)**

The PA graduate will be able to:

- Maintain and enhance professional activities through ongoing learning.
- Critically evaluate information and its sources and apply this appropriately to practice decisions.
- Facilitate the learning of patients, colleagues and students.
- Contribute to the application of new medical knowledge and practices.

###### **(Collaborator)**

The PA graduate will be able to:

- Participate effectively in a collaborative practice model while recognizing their role and limits within the healthcare team.
- Work effectively with other professionals to prevent, negotiate and resolve inter-professional conflict.

#### **3.3 Application of Knowledge**

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<sup>4</sup>Mikhael, Ozon and Rhule, 2007

<sup>5</sup>Mikhael, Ozon and Rhule, 2007

### **(Health Advocate)**

Within the physician assistant-patient relationship, the PA graduate will be able to:

- Promote the health of individual patients, communities and populations.
- Respond to individual patient health needs and issues as part of patient care.
- Respond to the health needs of the communities that they serve.
- Identify the determinants of health for the populations that they serve.

## **3.4. Communication Skills**

### **(Communicator)**

The PA graduate will be able to:

- Develop rapport, trust and ethical therapeutic relationships with patients, families and caregivers.
- Accurately elicit and synthesize relevant information and perspectives of patients, families, caregivers and other health care professionals.
- Accurately convey relevant information and explanations to the supervising physician, patients, families and other health care professionals.
- Develop an understanding of patient problems and plans with the supervising physician, patients, families and other health care professionals to develop a shared plan of care.
- Convey effective oral and written information about a medical encounter to the supervising physician.

## **3.5 Awareness of Limits of Knowledge**

### **(Professional)**

The PA graduate will be able to:

- Demonstrate a commitment to their patients, profession and society through ethical practice.
- Demonstrate a commitment to Physician Assistant health and sustainable practice.
- Demonstrate a commitment to their scope of practice and the unique PA-physician relationship.

## **3.6 Autonomy and Professional Capacity**

### **(Manager)**

The PA graduate will be able to:

- Participate in activities that contribute to the effectiveness of their healthcare organization and systems.
- Effectively prioritize and execute tasks in collaboration with colleagues.
- Allocate finite healthcare resources appropriately.